In the Claims:

Please amend the claims as follows:

~~Patent claims:~~

What is claimed is:

1. (Amended) An apparatus for reforming rod-shaped, electrically conductive and/or magnetizable materials ~~(2), in particular for drawing and extruding, having the following features~~ comprising:

- the apparatus ~~(1)~~ has a female mold ~~(3)~~ having a die ~~(2)~~, which forms ~~the~~ a tool for reforming;

- the apparatus ~~(1)~~ has an inductor ~~(5)~~ of an electric linear motor, by means of which a traveling electric field can be produced;

- the inductor ~~(5)~~ comprises at least one first group ~~(6)~~ at least with first coils ~~(8)~~;

- the first coils ~~(8)~~ in the first group ~~(6)~~ are arranged axially next to one another and thus form a channel ~~(12)~~;

- using the inductor ~~(5)~~ it is possible to produce a traveling field in the channel ~~(12)~~ which has a magnetic flux density having a gradient in the axial direction of the channel ~~(12)~~,

~~characterized in that~~
wherein

the gradient has an amplitude of greater than B = 1 T, and at least some of the first coils ~~(8)~~ have a conductor ~~(9)~~ which has a resistivity of $\rho = 0.017 * 10\text{-}6\ \Omega m$ or less.

2. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 1, wherein the inductor ~~(5)~~ has a second group ~~(7)~~ at least with first coils ~~(8)~~.

3. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 2, wherein the first group ~~(6)~~ and the second group ~~(7)~~ are arranged on opposite sides of the female mold ~~(3)~~, the first coils ~~(8)~~ of the two groups being coaxial with respect to the die ~~(4)~~ of the female mold ~~(3)~~.

4. (Amended) The apparatus as claimed in ~~one of the preceding claims, characterized in that~~ claim 2, wherein the first group ~~(6)~~ and possibly the second group ~~(7)~~ have second coils, which engage around the first coils and are coaxial with respect to the first coils.

5. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 4, wherein the first group ~~(6)~~ and ~~possibly~~ the second group ~~(7)~~ ~~have further, namely third, fourth, ... n-th~~ comprise a plurality of coils, which engage around the ~~second or third, ... (n-1)-th~~ coils and are coaxial with respect to the ~~second or third, ... (n-1)-th~~ plurality of coils.

6. (Amended) The apparatus as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein in each case a disk ~~(10)~~ made of a magnetizable material is arranged between the first coils ~~(8)~~ which are arranged coaxially next to one another.

7. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 1, wherein the ~~disks (8) first coils~~ have an outer edge ~~(11)~~ which is bent back to one side.

8. (Amended) The apparatus as claimed in ~~the preceding claim,~~

~~characterized in that~~ claim 7, wherein the bent-back edge ~~(11)~~ covers an adjacent, first coil ~~(8)~~ or a stack of adjacent and coaxially arranged coils.

9. (Amended) The apparatus as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the apparatus ~~(1)~~ has means for cooling the rod-shaped material ~~(2)~~ to be reformed.

10. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 9, wherein the means for cooling apply a first cooling medium to the channel ~~(12)~~.

11. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 10, wherein the first cooling medium is air or an oil.

12. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 11, wherein the electrical current density in the first coils ~~(8)~~ is greater than $J = 10\ A/mm^2$.

13. (Amended) The apparatus as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein at least some of the first coils ~~(8)~~ have conductors ~~(9)~~ which are superconducting.

14. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 13, wherein the superconducting conductors ~~(9)~~ are made of a material which has a critical temperature of greater than $T = 77\ K$.

15. (Amended) The apparatus as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein at least some of the first coils ~~(8)~~ have conductors ~~(9)~~ which have a channel ~~(12)~~.

16. (Amended) The apparatus as claimed in ~~the preceding claim, characterized in that~~ claim 15, wherein a second cooling medium can be applied to the channel (12) in the conductor (9).

17. (Amended) A method for reforming rod-shaped, electrically conductive and/or magnetizable materials ~~(2), in particular drawing and extruding~~, using the apparatus as claimed in ~~one of claims 1 to 16~~ claim 1, having the following steps:

Step a) in one step, the material to be reformed is introduced into ~~a~~ the channel ~~(12)~~;

Step b) in one step, a traveling magnetic field having a gradient lying in the channel direction is produced in the channel ~~(12)~~ and has, in ~~the~~ center of the channel ~~(12)~~, a magnetic flux density having an amplitude of greater than B = 1 T; and

Step c) in one step, the material ~~(2)~~ is introduced into the die ~~(4)~~ of the female mold ~~(3)~~.

18. (Amended) The method as claimed in ~~the preceding claim, characterized in that firstly~~ claim 17, wherein step c) is performed, followed by step a), and then followed by step b) ~~in accordance with claim 17 is carried out~~.

19. (Amended) The method as claimed in claim 17, ~~characterized in that firstly~~ wherein step c) ~~,~~ is followed by step b), and followed by step a) ~~in accordance with claim 17 is carried out~~.

20. (Amended) The method as claimed in claim 17, ~~characterized in that firstly~~ wherein step a) ~~,~~ is followed by step b), and followed by step c) ~~in accordance with claim 17 is carried out~~.

21. (Amended) The method as claimed in claim 17, ~~characterized in that firstly~~ wherein step b)~~,~~ is followed by step a), and followed by step c) ~~in accordance with claim 17 is carried out~~.

22. The method as claimed in claim 17, ~~characterized by the following steps~~ wherein

Step a1) in one step, the material ~~(2)~~ to be reformed is introduced into a first part of the channel ~~(12)~~;

Step a2) in one step, the material ~~(2)~~ is introduced into a second part of the channel ~~(12)~~;

Step b1) in one step, the traveling magnetic field is produced in the first part of the channel ~~(12)~~; and

Step b2) in one step, the traveling magnetic field is produced in the second part of the channel ~~(12)~~.

23. (Amended) The method as claimed in claim 22, ~~characterized in that~~ wherein the steps are carried out in the following sequence: Step a1), Step c), Step b1) ((+)) and Step b2).

24. The method as claimed in claim 22, ~~characterized in that~~ wherein the steps are carried out in the following sequence: Step b1) ((+)) and Step b2), Step a1), Step c), and Step a2).